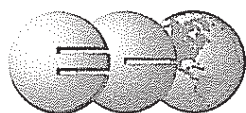


Wetland Delineation
For
Brown Cattle Company
Yuba County, California

DRAFT

May 11, 2006

Prepared for:
River West Investments



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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Wetland Delineation Brown Cattle Company

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Consulting master copy only)

INTRODUCTION

On behalf of River West Investments, ECORP Consulting, Inc. (ECORP) has conducted a wetland delineation of the 613±-acre Brown Cattle Company property. The project area is northeast of the city of Wheatland, south of Beale Air Force Base, and north of Spenceville Road in Yuba County, California. (Figure 1 – *Project Site and Vicinity Map*). The project area corresponds to an unsectioned portion of Township 14 North, and Range 5 East (MDBM) of the "Camp Far West, California" and "Wheatland, California" 7.5-minute quadrangles (U.S. Department of the Interior, Geological Survey 1995 and 1973; respectively). The approximate center of the project area is located at 39° 03' 00" North and 121° 22' 30" West within the Lower Bear Watershed (#18020108, U.S. Department of Interior, Geological Survey 1978).

This report describes waters of the United States, including wetlands, identified within the project area that may be regulated by the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act. The information presented in this report provides data required by the U.S. Army Corps of Engineers Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetland Delineations* (U.S. Army Corps of Engineers, 2001). The waters of the U.S. boundaries depicted in this report represent a calculated estimation of the jurisdictional area within the project area and are subject to modification following the Corps verification process.

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Existing Site Conditions

The project area is composed of hilly terrain ranging in elevation from approximately 100 and 130 feet above mean sea level. An annual grassland vegetation community dominates the

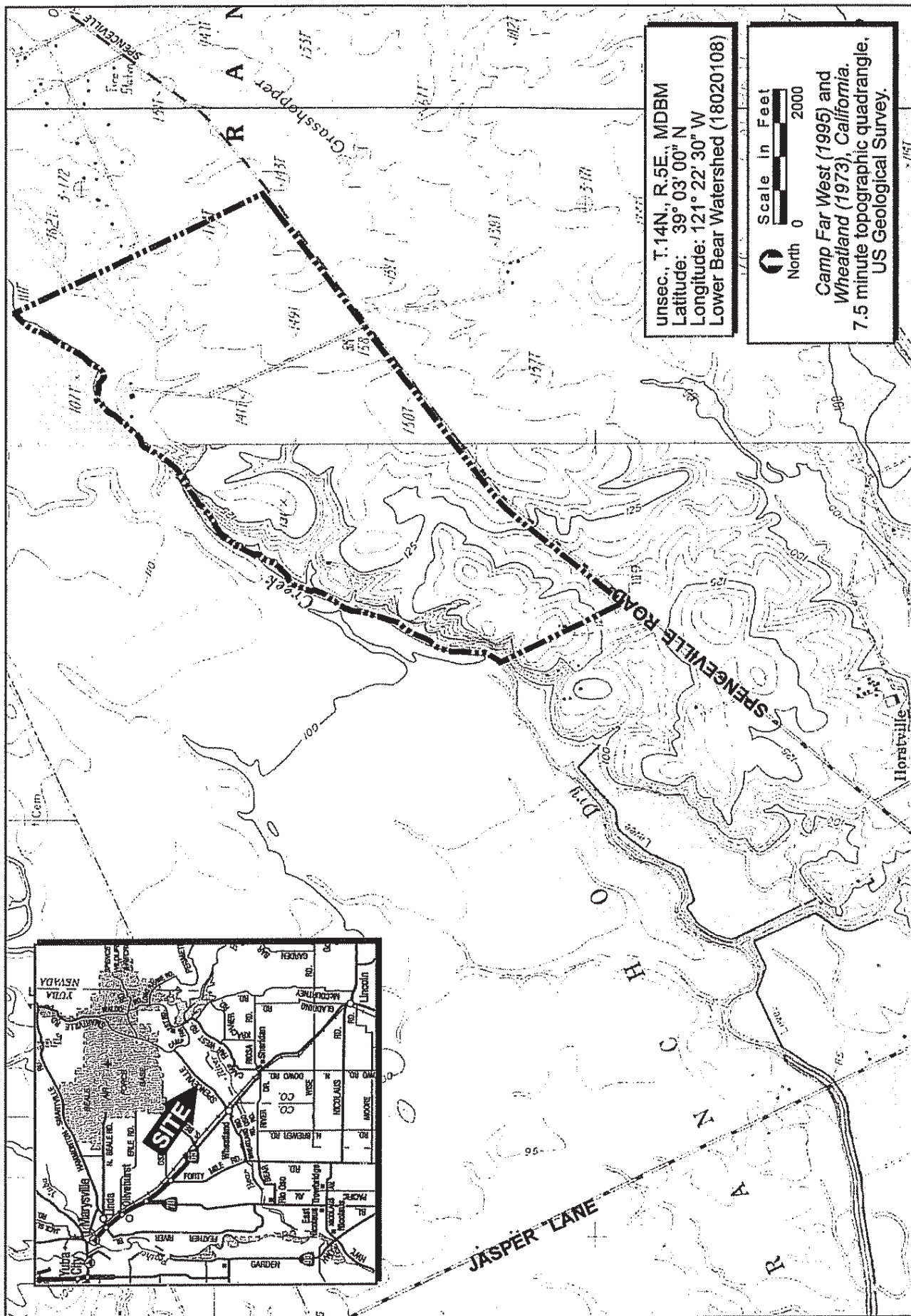


FIGURE 1. Project Site and Vicinity Map

project area. A riparian corridor associated with Dry Creek is present along the northern boundary of the property.

A house, barn, and horse corral are located in the northwest portion of the property. The project area has historically, and is currently being used for cattle grazing. In the northern portion of the project area, between the pasture and Dry Creek, are areas of un-grazed annual grasslands with frequent burrow sites. Most of the project area is composed of a variety of non-native naturalized grasses and forbs such as wild oats (*Avena fatua*), ryegrass (*Lolium multiflorum*), barley (*Hordeum murinum*), filaree (*Erodium botrys*), bur clover (*Medicago polymorpha*), and curly dock (*Rumex crispus*). Aquatic features on-site include two stock ponds, Dry Creek, ephemeral drainages, vernal pools, seasonal wetlands and seasonal wetland swales.

According to the *Soil Survey of Yuba County, California* (U.S. Department of Agriculture, Soil Conservation Service 1998), two soil units, or types, have been mapped within the project area (Figure 2 – *Natural Resources Conservation Service Soil Types*). These are (141) Conejo loam, 0-2% slopes and (208) Redding gravelly loam 3-8% slopes. Redding gravelly loam contains listed hydric inclusions (U.S. Department of Agriculture, Soil Conservation Service, 1998).

Surrounding land use consists primarily of agricultural land. Dry Creek runs along the northern border of the property. Lands north of Dry Creek are mainly used for walnut production. To the west, east, and south are grazed pastures. An oak woodland community is located southwest of the project boundary including Valley oak (*Quercus lobata*) and interior live oak (*Quercus wislizenii*). A small grove of eucalyptus trees (*Eucalyptus spp.*) is also found in this area.

METHODS

This wetland delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). The waters of the U.S. boundaries were delineated through aerial photograph interpretation and standard field methodologies (i.e., paired data set analyses), and all wetland data were recorded on Routine Wetland Determination Forms (Appendix A). A color aerial photograph (1"=250' scale, Airphoto USA

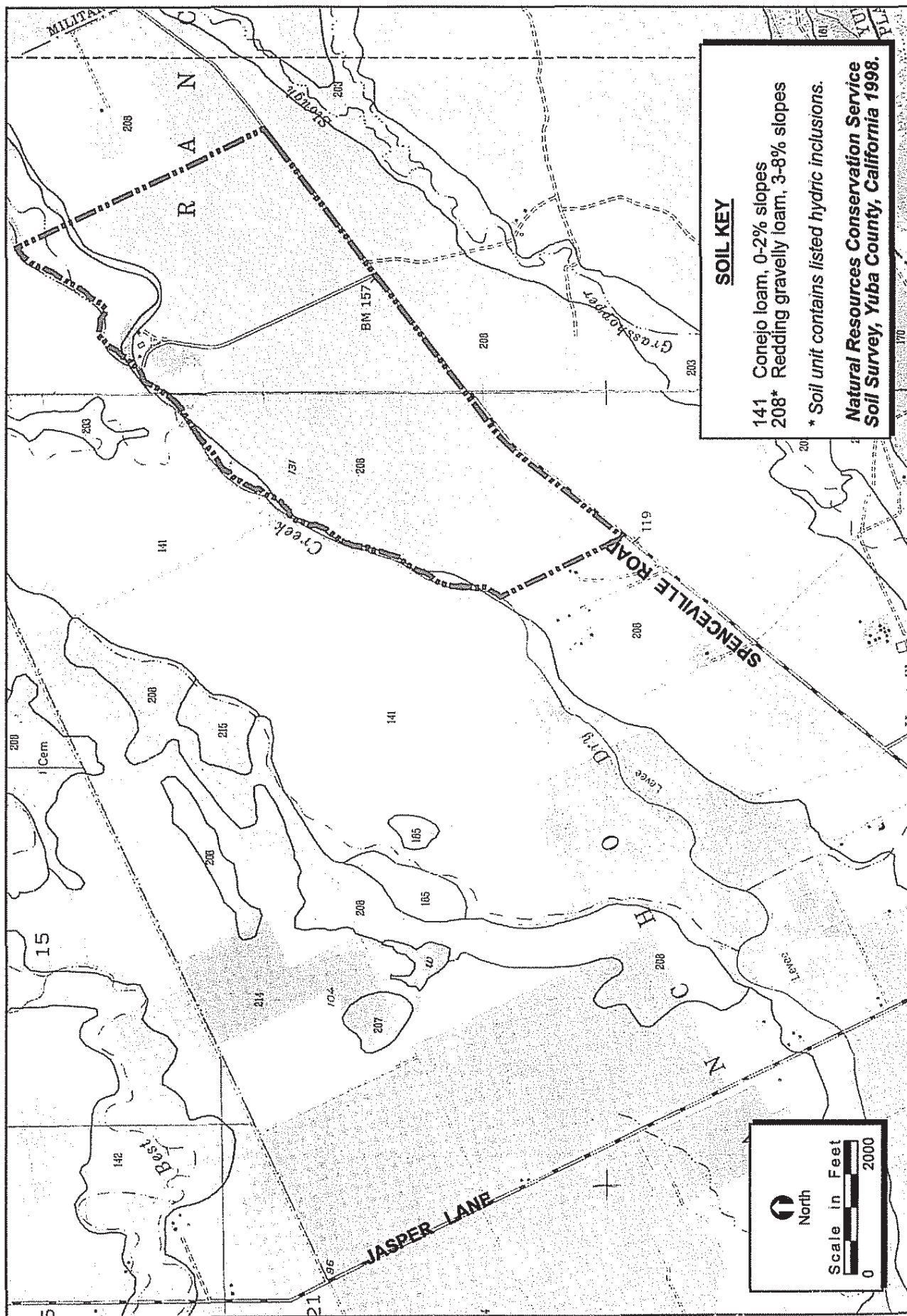


FIGURE 2. Natural Resources Conservation Service Soil Types

April 2004) was used to assist with mapping and ground-truthing. *Munsell Soil Color Charts* (Kollmorgen Instruments Co. 1990) and the *Soil Survey of Yuba County, California* (U.S. Department of Agriculture, Soil Conservation Service 1998) were used to aid in identifying hydric soils in the field. *The Jepson Manual* (Hickman, ed. 1993) was used for plant nomenclature and identification.

Field wetland surveys were conducted during the months of May and June, 2005 by ECORP biologist Stacy Roper. Ms. Roper walked the entire 613±-acre project area to determine the location of potentially jurisdictional boundaries within the property. Thirteen paired data point locations were sampled to evaluate vegetation, hydrology, and soils to determine wetland or non-wetland status. At each paired location, one point was located within the estimated wetland area, and the other point was situated outside the limits of the estimated wetland area. The total area of wetlands within the property was recorded in the field using a post-processing capable global positioning satellite (GPS) unit with sub-meter accuracy (Trimble Pro XR-TSCE Data Collector).

Waters of the United States

This report describes waters of the United States that may be regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act. Wetlands are “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (Environmental Laboratory, 1987). Wetlands can be permanent or intermittent, and isolated or adjacent to other waters.

Other waters are non-tidal, perennial, and intermittent watercourses and tributaries to such watercourses (33 CFR 328.3(a) Corps Regulatory Program Regulations, *Federal Register* 51(219), November 13, 1986). The limit of Corps jurisdiction for non-tidal watercourses (without adjacent wetlands) is defined in 33 CFR 329.11 (a)(1) as the “ordinary high water mark” (OHWM). The OHWM is defined as the “*line on the (watercourse banks) established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence*

of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas." The bank-to-bank extent of the channel that contains the water-flow during a normal rainfall year generally serves as a good first approximation of the lateral limit of Corps jurisdiction. The upstream limits of other waters are defined as the point where the OHWM is no longer perceptible.

Routine Determinations

To be determined a wetland; the following three parameters should be present:

- A majority of dominant vegetation species are wetland associated species;
- Hydrologic conditions exist that result in periods of flooding, ponding, or saturation during the growing season; and
- Hydric soils are present.

Vegetation

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanent or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental Laboratory 1987). The definition of wetlands includes the phrase "a prevalence of vegetation typically adapted for life in saturated soil conditions." Prevalent vegetation is characterized by the dominant plant species comprising the plant community (Environmental Laboratory 1987). The "50/20 rule" was used to determine the dominant plant species at each data point location. The rule states that for each stratum in the plant community, dominant species are the most abundant plant species (when ranked in descending order of abundance and cumulatively totaled) that immediately exceed 50 percent of the total dominance measure for the stratum, plus any additional species that individually comprise 20 percent or more of the total dominance measure for the stratum (HQUSACE 1992).

Dominant plant species observed at each data point were then classified according to their indicator status (probability of occurrence in wetlands) (Table 1), in accordance with the U.S. Fish and Wildlife Service's (USFWS) National List of Vascular Plant Species That Occur in Wetlands: California (Region 0) (Reed 1988). If the majority (greater than 50 percent) of the dominant vegetation on a site are classified as obligate (OBL), facultative wetland (FACW), or facultative (FAC) (excluding FAC-), then the project area is considered to be dominated by hydrophytic vegetation.

Table 1 – Classification of Wetland-Associated Plant Species¹

Plant Species Classification	Abbreviation²	Probability of Occurring in Wetland
Obligate	OBL	>99%
Facultative Wetland	FACW	66-99%
Facultative	FAC	33-66%
Facultative Upland	FACU	1-33%
Upland	UPL	<1%
No indicator status	NI	Insufficient information to determine status
Plants That Are Not Listed (assumed upland species)	NL	Does not occur in wetlands in any region.

¹ Source: Reed 1988

² A '+' or '-' symbol can be added to the classification to indicate greater or lesser probability, respectively, of occurrence in a wetland.

Soils

A hydric soil is defined as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (USDA-NRCS 2003). Indicators that a hydric soil is present include soil color (gleyed soils and soils with bright mottles and/or low matrix chroma), aquic or preaquic moisture regime, reducing soil conditions, sulfidic material (odor), soils listed on hydric soils list, iron and manganese concretions, organic soils (Histosols), histic epipedon, high organic content in surface layer in sandy soils, and organic streaking in sandy soils.

A soil pit was excavated to a depth of 16 inches or refusal at each data point. The soil was then examined for hydric soil indicators. The matrix color and mottle color (if present) of the soil was determined using the *Munsell Soil Color Charts* (Kollmorgen Instruments Co. 1990).

Hydrology

Wetlands, by definition, are seasonally inundated or saturated at or near (within 12 inches of) the soil surface. To be classified as a wetland, a site should have at least one primary indicator or two secondary indicators of wetland hydrology. Primary indicators of wetland hydrology may include, but are not limited to: water marks, drift lines, sediment deposition, drainage patterns, visual observation of saturated soils, and visual observation of inundation. In addition to the primary indicators, there are a variety of secondary wetland hydrology indicators. Secondary indicators include, but are not limited to: oxidized root channels in the upper 12 inches, water-stained leaves, and local soil survey data. When no primary indicators of wetland hydrology are observed at a data point, two or more secondary indicators are required to confirm wetland hydrology.

RESULTS

A total of 41.070 acres of potential waters of the U.S has been mapped for this site (Table 2). The routine wetland determination forms are included in Appendix A, and a list of plant species observed at data points is included in Appendix B. A discussion of the wetlands and other waters is presented below, and wetland delineation maps are presented in Figure 3 and Appendix C.

Table 2 – Waters of the U.S.

<u>Wetland Type</u>	<u>Acreage</u>
<i>Wetlands</i>	
Vernal Pool	13.862
Seasonal Wetland	2.450
Seasonal Wetland Swale	11.035
<i>Other Waters</i>	
Ephemeral Drainage	1.418
Dry Creek	10.554
Pond	1.751
Total:	41.070

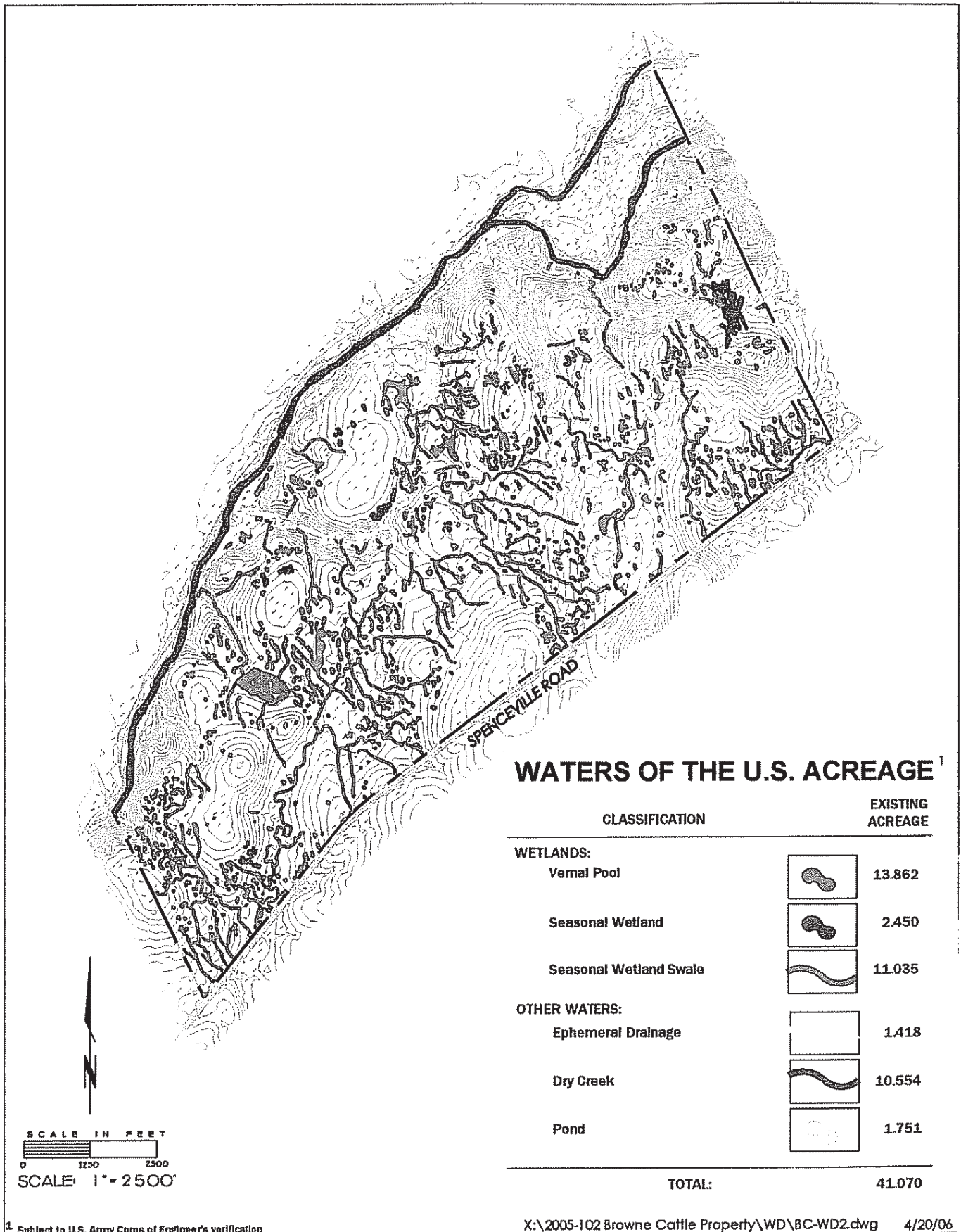


FIGURE 3. Wetland Delineation

Wetlands

Vernal Pool

Vernal pools are topographic basins that are typically underlain with an impermeable or semi-permeable hardpan or duripan layer. Vernal pools are generally inundated throughout the wet season and are dry by late spring through the following wet season. Vernal pools are scattered throughout the project area. A total of 13.862 acres of vernal pool features were mapped.

Plants identified within vernal pools included hydrophytic species such as Vasey's coyote-thistle, annual hairgrass, white-head navarretia, and ryegrass.

Primary indicators of wetland hydrology observed in vernal pools included drainage patterns in wetlands. Other hydrologic indicators (i.e., soil saturation and inundation) were not observed due to the time of year that the delineation was conducted (May-June). Within ephemeral features, these indicators are generally only observable during the wet season and early in the growing season.

Hydric soil criteria were met by a combination of low chroma soils and / or the presence of a presumed aquic moisture regime. The soil matrix color within VP-252 and VP-520 was 7.5YR3/1. VP-568 and VP-95 met hydric soil criteria based on the presence of a presumed aquic moisture regime, indicated by a topographic depression which ponds water for greater than 5% of the growing season.

Seasonal Wetland

Seasonal wetlands are ephemerally wet areas where surface runoff and rainwater accumulate within low-lying areas. Inundation periods tend to be relatively short and seasonal wetlands are commonly dominated by non-native annual, and sometimes perennial, hydrophytic species. Seasonal wetlands are found throughout the Brown Cattle Company site. They are in general located in low-lying areas associated with seasonal wetland swales. A total of 2.450 acres of seasonal wetlands were mapped on the Brown Cattle Company site.

Plants identified within seasonal wetlands included hydrophytic species, such as Vasey's coyote-thistle (*Eryngium vaseyi*), mannagrass (*Glyceria* sp.), and annual rabbit-foot grass (*Polypogon monspeliensis*) ryegrass and common tarweed (*Hemizonia pungens*).

Wetland hydrology indicators observed within seasonal wetlands include drainage patterns in wetlands and sediment deposits (i.e., algal matting). Other hydrologic indicators (i.e., soil saturation and inundation) were not observed due to the time of year that the survey was conducted (May – June). Within ephemeral features, these indicators are generally only observable during the wet season and early in the growing season.

Two paired data points were collected in/near seasonal wetland features. Soil matrix color in SW-42 was of low chroma indicating hydric soil (7.5YR3/1) compared to the associated upland soil matrix color (7.5YR4/3). Soil data collected within SW-54 met hydric soil criteria based on the presence of a presumed aquic moisture regime, indicated by a topographic depression in which water ponds for greater than 5% of the growing season.

Seasonal Wetland Swale

Seasonal wetland swales are linear features that do not exhibit an ordinary high water mark. These features have been mapped throughout the Brown Cattle Company project site and are generally oriented from north to south. A total of 11.035 acres of seasonal wetland swales were mapped on the project site.

Plants identified within the network of seasonal wetland swales included hydrophytic species such as Vasey's coyote-thistle, annual hairgrass (*Deschampsia danthonioides*), white-head navarretia (*Navarretia leucocephala*), annual rabbit-foot grass, and toad rush (*Juncus bufonius*). Other fac species were also identified within the seasonal wetlands including ryegrass and common tarweed.

Primary indicators of wetland hydrology observed within seasonal wetland swales include drainage patterns in wetlands and watermarks. Other hydrologic indicators (i.e., soil saturation and inundation) were not observed due to the time of year the field survey was conducted.

Within ephemeral features, these indicators are generally only observable during wet season and early in the growing season.

The soil matrix colors within SWS-183, SWS-31, SWS-160, and SWS-197 were 7.5YR3/1 without redoxomorphic (redox) features (i.e., mottles) from a depth of 0 to 8 inches meeting hydric criteria based on low chroma soil matrix color. SWS-189 met hydric soil criteria based on the presences of a presumed aquic moisture regime, indicated by a topographic depression which ponds water for greater than 5% of the growing season.

Other Waters

Ephemeral Drainage

Ephemeral drainages are linear features that exhibit an OHWM. These are seasonal features that typically convey runoff for short periods of time, immediately following rain events and do not receive supplemental water from groundwater sources. The ephemeral drainages on site tend to be largely un-vegetated due to the scouring effects of flowing water. Paired data points were sampled in ED-5. The drainage exhibited hydrophytic vegetation such as spikerush (*Eleocharis* sp.), soils of low chroma (10YR3/1), and a number of primary hydrologic indicators including inundation, watermarks, and drainage patterns in wetlands.

Stock Pond

Two stock ponds are located near the northern boundary of the project area. These two features total 1.751 acres and are connected to Dry Creek by ephemeral drainages.

Dry Creek

Dry Creek runs along the northern boundary of the project site (10.554 acres). Riparian vegetation associated with Dry Creek consists of a willow (*Salix* sp.), Fremont's cottonwood (*Populus fremontii*), valley oak, and interior live oak. This feature was mapped at the OHWM.

INTERSTATE COMMERCE

The seasonal wetlands and vernal pools on-site are tributary to the seasonal wetland swales. Seasonal wetland swales and stock ponds are tributary to ephemeral drainages, which in turn are tributary to Dry Creek. Dry Creek is tributary to the Bear River, which flows into the Feather River. The Feather River ultimately reaches the Sacramento River, which is considered navigable waters of the U.S. Thus, wetlands and other waters on-site should be considered connected with and/or adjacent to a Waters of the U.S., and would therefore be subject to interstate and/or foreign commerce.

CONCLUSION

A total of 41.070 acres of potential waters of the U.S. have been mapped on-site. These acreages represent a calculated estimation of the jurisdictional area within the project area, and are subject to modification following the Corps verification process. A final verified wetland map along with a signed verification letter from the Corps, will accompany the final draft wetland delineation report filed. Fill within jurisdictional features would require permitting pursuant to Section 404 and 401 of the federal Clean Water Act.

REFERENCES

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LIST OF APPENDICES

Appendix A – Routine Wetland Determination Forms

Appendix B – Plant Species Observed at Data Point Locations

Appendix C – Wetland Delineation

Appendix D – Wetland Delineation Shape File (to be included with Corps submittal only)

Appendix E – Corps-Verified Wetland Map and Verification Letter (to be included in the Final Draft document upon receipt)

APPENDIX A

Routine Wetland Determination Forms

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6-29-05 Sample Point: 01
Applicant/Owner: River - West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: 4N5E, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☐ No ☒

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Tae cap</u>	<u>-</u>	<u>H</u>	<u>57.1</u>	5) _____	_____	_____	_____
2) _____	_____	_____	_____	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 0/1 = 0 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: - (in.) Depth to free water in pit: - (in.) Depth to saturated soil: 76 (in.)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: No 1^o or 2^o indicators

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Redding gravelly loam 3-8% slope Drainage Class: well drained
Taxonomy [Subgroup]: thermic Abruptic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6"</u>	<u>A</u>	<u>7.5 YR 3/3</u>	<u>-</u>	<u>-</u>	<u>sandy clay loam</u>
<u>Bottom of soil pit @ 6"</u>					

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not meet any of the parameters.
General comments: Paired w/ point 2
Wetland Type: _____

sample point 1

[illegible]

COVER:

Vegetation	<u>100%</u>
Bare Ground	<u> </u>
Rocks	<u> </u>
Other <u> </u>	<u> </u>
TOTAL =	<u>100%</u>

[illegible]

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/29/05 Sample Point: 02
Applicant/Owner: River-West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: UNSEC, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>hol mnh</u>	<u>FAC</u>	<u>H</u>	<u>33.3</u>	5) _____	_____	_____	_____
2) <u>Hem pun</u>	<u>FAC</u>	<u>H</u>	<u>23.8</u>	6) _____	_____	_____	_____
3) <u>Ery vas</u>	<u>FACW</u>	<u>H</u>	<u>23.8</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 3/3 = 100 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: _____ (in.) Depth to free water in pit: _____ (in.) Depth to saturated soil: 78 (in.)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☒ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: 1^o indicator observed

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: Redding gravelly loam 3-8 % slopes Drainage Class: well-drained
Taxonomy [Subgroup]: thermic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☒ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>8</u>	<u>A</u>	<u>7.5 YR 3/1</u>	<u>—</u>	<u>—</u>	<u>sandy clay loam</u>
<u>Bottom of soil pit @ 8"</u>					

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: meets all 3 parameters
General comments: Paired with sample point 1.

Wetland Type: seasonal wetland swale
(#183)
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Sample point 2

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Hem pul	25	23.8
Ery vaj	25	23.8
Hel mul	35	33.3
Pla spe	10	9.5
Tri hir	10	9.5
Total Sum	105	

COVER:

Vegetation	100
Bare Ground	
Rocks	
Other	
TOTAL =	100%

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/29/05 Sample Point: 03
Applicant/Owner: River - West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: UNSEC, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☐ No ☒

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Tae cap</u>	<u>-</u>	<u>H</u>	<u>60</u>	5) _____	_____	_____	_____
2) _____	_____	_____	_____	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 0/1 = 0 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____

Depth of surface water: - (in.) Depth to free water in pit: - (in.) Depth to saturated soil: 76 (in.)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____

Comments: No 10 or 2+ indicators observed

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: well-drained

Taxonomy [Subgroup]: thermic Abratic Durixeralfs Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____

Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>7.5 YR 3/3</u>	<u>-</u>	<u>-</u>	<u>sandy clay loam</u>
<u>Bottom of soil pit @ 6"</u>					

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does Not met any of the parameters.

General comments: Paired with sample point 4.

Wetland Type: _____

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Tae cap	60	60
Hem pun	10	10
Brd hcr	15	15
Bri min	15	15
TOTAL SUM (Σ) =	100	100%

COVER:

Vegetation	<u>100</u>
Bare Ground	<u> </u>
Rocks	<u> </u>
Other <u> </u>	<u> </u>
TOTAL =	<u>100%</u>

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Tal cap	60	60		
TOTAL SUM (Σ) =		100%		

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/29/05 Sample Point: 04
Applicant/Owner: River - West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: UNSEC, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: Seasonal inundations

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Alav leu</u>	<u>obl</u>	<u>H</u>	<u>31.8</u>	5) _____	_____	_____	_____
2) <u>Ery ras</u>	<u>FACW</u>	<u>H</u>	<u>22.7</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/2 = 100 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____

Depth of surface water: — (in.) Depth to free water in pit: — (in.) Depth to saturated soil: 78 (in.)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☒ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____

Comments: 2 1st indicators observed

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: well drained

Taxonomy [Subgroup]: Thermic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☒ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____

Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>8</u>	<u>A</u>	<u>10YR 3/2</u>	<u>—</u>	<u>—</u>	<u>sandy clay loam</u>
<u>Bottom of soil pit @ 8"</u>					

Comments: Topographic depression with indication of frequent ponding.

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: all 3 criteria met

General comments: Paired with sample point 3

Wetland Type: Vernal Pool (#95)

SP4

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
<i>Lot mal</i>	15	13.6
<i>Ery Vos</i>	25	22.7
<i>Nav leu</i>	35	31.8
<i>Hem punl</i>	20	18.2
<i>Gly spe</i>	15	13.6
TOTAL SUM (Σ) =	110	100%

COVER:

Vegetation 100

Bare Ground

Rocks

Other

TOTAL = 100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
<i>Nav leu</i>	31.8	31.8		
<i>Ery vos</i>	22.7	54.5		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/29/05 Sample Point: 05
Applicant/Owner: River - West Field Investigator(s): J. Raper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: UNSEC, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☐ No ☒

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Tae cap</u>	<u>-</u>	<u>H</u>	<u>36.4</u>	5) _____	_____	_____	_____
2) <u>Bro hor</u>	<u>FACU</u>	<u>H</u>	<u>18.2</u>	6) _____	_____	_____	_____
3) <u>Lol mul</u>	<u>FAC</u>	<u>H</u>	<u>18.2</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/3 = 33 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: — (in.) Depth to free water in pit: — (in.) Depth to saturated soil: 78 (in.)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland:
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: No 1^o or 2^o indicators observed

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: well drained
Taxonomy [Subgroup]: Themic Abrutic Puri sceralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒
Depth (in.) Horizon Matrix Color Mottle Color Mottle (Abund/Contrast/Size) Texture, Concretions, Structure
8 A 7.5 YR 3/2 — — sandy clay loam
Bottom of soil pit @ 8". _____
Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not meet any of the 3 criteria
General comments: _____
Wetland Type: _____

sp 5

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Bro hor	20	18.2
Lol mul	20	18.2
Hem pun	15	13.6
Tae cap	40	36.4
Tri hir	15	13.6
TOTAL SUM (Σ) =	110	100%

COVER:

Vegetation 100

Bare Ground

Rocks

Other

TOTAL = 100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Tae cap	36.4	36.4		
Bro hor	18.2	54.6		
Lol mul	18.2	72.8		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/29/05 Sample Point: 06
Applicant/Owner: River West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: unsec, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Ery Vars</u>	<u>FACW</u>	<u>H</u>	<u>35</u>	5) _____	_____	_____	_____
2) <u>Gly Spa</u>	<u>OBL</u>	<u>H</u>	<u>35</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/2 = 100 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____

Depth of surface water: _____ (in) Depth to free water in pit: _____ (in) Depth to saturated soil: 78 (in)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☒ Sediment Deposits ☒ Drainage Patterns in Wetland:

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☒ Other hog prints

Comments: 1° + 2° indicators observed

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: Redding gravelly loam 3-8% slope Drainage Class: well drained

Taxonomy [Subgroup]: Themic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☒ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____

Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>8</u>	<u>A</u>	<u>7.5 YR 3/2</u>	<u>-</u>	<u>-</u>	<u>sandy clay loam</u>
<u>Bottom of soil pit @ 8".</u>					

Comments: Topographic depression with indications of ponding.

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: all 3 criteria met.

General comments: _____

Wetland Type: Seasonal wetland (#54)

5p6

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Ery Vas	35	35
Gly spe	35	35
lol mul	20	20
Pol man	10	10
TOTAL SUM (Σ) =	100	100%

<u>COVER:</u>	
Vegetation	85
Bare Ground	
Rocks	
Other <u>plant liter</u>	15
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Ery Vas	35	35		
Gly spe	35	70		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 07
Applicant/Owner: River-West Field Investigator(s): S. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: UNSEC, T.14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Tae cap</u>	<u>-</u>	<u>H</u>	<u>24</u>	5) _____	_____	_____	_____
2) <u>Bro hor</u>	<u>FACU</u>	<u>H</u>	<u>20</u>	6) _____	_____	_____	_____
3) <u>Hem pun</u>	<u>FAC</u>	<u>H</u>	<u>20</u>	7) _____	_____	_____	_____
4) <u>Lol mul</u>	<u>FAC</u>	<u>H</u>	<u>20</u>	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/4 = 50 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: _____ (in) Depth to free water in pit: _____ (in) Depth to saturated soil: 76 (in)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland:
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: No 1^o or 2^o indicators observed.

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: well drained
Taxonomy [Subgroup]: Thermic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretions
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6"</u>	<u>A</u>	<u>7.5Y/R 3/4</u>	<u>-</u>	<u>-</u>	<u>sandy clay loam</u>
<u>Bottom of soil pit @ 6".</u>					

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: only 1 of 3 criteria met.
General comments: _____

Wetland Type: _____

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Bro hor	25	20
Hem pun	25	20
Lol mul	25	20
Tae cap	30	24
Bri min	10	8
Cen sol	10	8
TOTAL SUM (Σ) =	125	100%

<u>COVER:</u>	
Vegetation	100
Bare Ground	
Rocks	
Other	
TOTAL =	100%

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Tae cap	24	24		
Bro hor	20	44		
Hem pun	20	64		
Lol mul	20	84		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 08
Applicant/Owner: River - West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: 4N5E, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Lol mul</u>	<u>fac</u>	<u>H</u>	<u>55.5</u>	5) _____	_____	_____	_____
2) <u>Ham pur</u>	<u>fac</u>	<u>H</u>	<u>22.2</u>	6) _____	_____	_____	_____
3) <u>Ery vas</u>	<u>facw</u>	<u>H</u>	<u>22.2</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 3/3 = 100 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____

Depth of surface water: — (in.) Depth to free water in pit: — (in.) Depth to saturated soil: 78 (in.)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____

Comments: 1^o indicator observed.

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: well drained

Taxonomy [Subgroup]: Thermic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☒ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____

Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>8</u>	<u>A</u>	<u>7.5 YR 3/2</u>	<u>—</u>	<u>—</u>	<u>sandy clay loam</u>
<u>Bottom of soil pit at 8"</u>					

Comments: Topographic depression with indication of ponding.

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: all 3 criteria met.

General comments: _____

Wetland Type: seasonal wetland swale

5p8

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
<i>Lol mul</i>	50	55.5
<i>Hem pur</i>	20	22.2
<i>Ery vas</i>	20	22.2
TOTAL SUM (Σ) =	90	100%

COVER:

Vegetation 90

Bare Ground 10

Rocks

Other

TOTAL = 100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
<i>Lol mul</i>	55.5	55.5		
<i>Hem pur</i>	22.2	77.7		
<i>Ery vas</i>	22.2	99.9		
TOTAL SUM (Σ) =	100%			

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 09
Applicant/Owner: River - West Field Investigator(s): S. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: UNSEC, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☐ No ☒

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Bro hor</u>	<u>Facu</u>	<u>H</u>	<u>26.1</u>	5) _____	_____	_____	_____
2) <u>Ave fat</u>	<u>N/L</u>	<u>H</u>	<u>21.7</u>	6) _____	_____	_____	_____
3) <u>Tae cap</u>	<u>-</u>	<u>H</u>	<u>21.7</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 0/3 = 0 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: _____ (in.) Depth to free water in pit: _____ (in.) Depth to saturated soil: 76 (in.)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland:
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: No 1^o or 2^o indicators observed.

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: well drained
Taxonomy [Subgroup]: Themic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6"</u>	<u>A</u>	<u>5YR 3/4</u>	<u>-</u>	<u>-</u>	<u>sandy clay loam</u>
<u>Bottom of soil pit @ 6".</u>					

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not met any of the 3 parameters
General comments: _____

Wetland Type: _____

SP 9

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Bro hor	30	26.1
Ave fat	25	21.7
Tae cap	25	21.7
Haw bit	15	13.0
Tri hir	20	17.4
TOTAL SUM (Σ) =	115	100%

COVER:

Vegetation 100

Bare Ground

Rocks

Other

TOTAL = 100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Bro hor	26.1	26.1		
Ave fat	21.7	47.8		
Tae cap	21.7	69.5		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 10
Applicant/Owner: River - West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: 4N56E, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Lol mnl</u>	<u>FAC</u>	<u>H</u>	<u>30</u>	5) _____	_____	_____	_____
2) <u>Des dam</u>	<u>FACW</u>	<u>H</u>	<u>30</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/2 = 100 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: — (in.) Depth to free water in pit: — (in.) Depth to saturated soil: 78 (in.)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns in Wetland:
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☒ Other hoof prints
Comments: 10 + 20 indicator observed

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: Redding gravelly warm 3-8% slope Drainage Class: well-drained
Taxonomy [Subgroup]: Thurberic Abrutic Ducixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☒ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒
Depth (in.) Horizon Matrix Color Mottle Color Mottle (Abund/Contrast/Size) Texture, Concretions, Structure
8 A 7.5 YR 3/3 — — sandy clay loam
bottom of pit @ 8"

Comments: Topographic depression with indication of ponding.

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: all 3 criteria met.
General comments: _____
Wetland Type: Vernal pool (#568)

sp 10

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Lol muls	30	30
Des dan	30	30
Ery vas	20	20
Toe Cap	10	10
Hem pur	10	10
TOTAL SUM (Σ) =	100	100%

COVER:

Vegetation	100
Bare Ground	
Rocks	
Other	
TOTAL =	100%

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Lol muls	30	30		
Des dan	30	60		
TOTAL SUM (Σ) =	100%			

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 11
Applicant/Owner: River - West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: 4N5E, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☐ No ☒

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Bra hor</u>	<u>Facu</u>	<u>H</u>	<u>29.2</u>	5) _____	_____	_____	_____
2) <u>Tae cap</u>	<u>—</u>	<u>H</u>	<u>16.6</u>	6) _____	_____	_____	_____
3) <u>Bri mix</u>	<u>Facu</u>	<u>H</u>	<u>16.6</u>	7) _____	_____	_____	_____
4) <u>Tri hic</u>	<u>N/L</u>	<u>H</u>	<u>16.6</u>	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 0/4 = 0 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____

Depth of surface water: — (in.) Depth to free water in pit: — (in.) Depth to saturated soil: 76 (in.)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland:

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____

Comments: No 1° or 2° indicators observed.

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Redding gravelly loam 3-8% slope Drainage Class: well drained

Taxonomy [Subgroup]: thermic Abratic Durixeralfs Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____

Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>7.5 YR 3/4</u>	<u>—</u>	<u>—</u>	<u>sandy clay loam</u>
<u>Bottom of pit @ 6"</u>					

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not met any of the 3 criteria.

General comments: _____

Wetland Type: —

SP 11

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Ave fat	15	12.5
Bra hor	35	29.2
Ham pun	10	8.3
Tae cap	20	16.6
Bri min	20	16.6
Tri hic	20	16.6
TOTAL SUM (Σ) =		100%

COVER:

Vegetation	100
Bare Ground	
Rocks	
Other	
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Bra hor	29.2	29.2		
Tae cap	16.6	45.8		
Bri min	16.6	62.4		
Tri hic	16.6	79		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 12
Applicant/Owner: River - West Field Investigator(s): S. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: UNSEC, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Ery Vas</u>	<u>Facul</u>	<u>H</u>	<u>33.3</u>	5) _____	_____	_____	_____
2) <u>Tri vic</u>	<u>N/L</u>	<u>H</u>	<u>33.3</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/2 = 50%

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: _____ (in) Depth to free water in pit: _____ (in) Depth to saturated soil: 78 (in)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns in Wetland:
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: 1^o indicator observed

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: Redding gravelly loam 3-8% Drainage Class: well drained
Taxonomy [Subgroup]: Aeric Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☒ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>8</u>	<u>A</u>	<u>5YR 3/2</u>	<u>—</u>	<u>—</u>	<u>sandy clay loam</u>

Bottom of soil pit at 8".

Comments: Topographic depression with indications of ponding.

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: Meets all 3 criteria.

General comments: _____

Wetland Type: stock pond

sp 12

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Ery vas	35	33.3
Ham pun	15	14.3
Tae cap	20	19.6
Tri hir	35	33.3
TOTAL SUM (Σ) =	105	100%

COVER:

Vegetation 100

Bare Ground

Rocks

Other

TOTAL = 100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Ery vas	33.3	33.3		
Tri hir	33.3	66.6		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 13
Applicant/Owner: River - West Field Investigator(s): S. Roper
County: Yuba State: Ca Plant Community: _____
Quad(s): Wheatland Section/Township/Range: UNSE, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☐ No ☒

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Tar cop</u>	<u>-</u>	<u>H</u>	<u>27.2</u>	5) <u>Bri min</u>	<u>Facu</u>	<u>H</u>	<u>13.6</u>
2) <u>Tri hir</u>	<u>N/L</u>	<u>H</u>	<u>18.2</u>	6) <u>Lol mul</u>	<u>Fac</u>	<u>H</u>	<u>13.6</u>
3) <u>Bro har</u>	<u>Facu</u>	<u>H</u>	<u>13.6</u>	7) _____	_____	_____	_____
4) <u>Hem pun</u>	<u>Fac</u>	<u>H</u>	<u>13.6</u>	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/6 = 33 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: _____ (in.) Depth to free water in pit: _____ (in.) Depth to saturated soil: 76 (in.)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: No 1^o or 2^o indicators observed.

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Redding gravelly loam 3-8% slope Drainage Class: well drained
Taxonomy [Subgroup]: Themic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒
Depth (in.) Horizon Matrix Color Mottle Color Mottle (Abund/Contrast/Size) Texture, Concretions, Structure
6 A 7.5 YR 3/4 - - sandy clay loam
Bottom of pit at 6".
Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not meet any of the 3 criteria
General comments: _____
Wetland Type: _____

SP 13

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Bro hor	15	13.6
Tae cap	30	27.3
Hem pun	15	13.6
Bci min	15	13.6
Lol mul	15	13.6
Tri hir	20	18.2
TOTAL SUM (Σ) =	110	100%

COVER:

Vegetation	100
Bare Ground	
Rocks	
Other	
TOTAL =	100%

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Tae cap	27.3	27.3		
Tri hir	18.2	45.5		
Bro hor	13.6	59.1		
Hem pun	13.6	72.7		
Bci min	13.6	86.3		
Lol mul	13.6	99.9		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 14
Applicant/Owner: River - West Field Investigator(s): J. Raper
County: Yuba State: Ca Plant Community: _____
Quad(s): Wheatland Section/Township/Range: 4N5E, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>601 mead</u>	<u>FAC</u>	<u>H</u>	<u>26.3</u>	5) _____	_____	_____	_____
2) <u>Das dan</u>	<u>FACW</u>	<u>H</u>	<u>26.3</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/2 = 100 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: — (in.) Depth to free water in pit: — (in.) Depth to saturated soil: 78 (in.)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other hoof prints
Comments: 1^o indicator observed.

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: well drained
Taxonomy [Subgroup]: Thermic Abrutic Pucixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☒ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒
Depth (in.) Horizon Matrix Color Mottle Color Mottle (Abund/Contrast/Size) Texture, Concretions, Structure
8 A 7.5 YR 3/1 — — sandy clay loam
Bottom of soil pit at 8".

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: Meets all 3 parameters
General comments: _____

Wetland Type: Seasonal wetland scrub

sp 14

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Ery vas	20	21.0
Lol mul	25	26.3
Pol mon	15	15.8
Tri hir	10	10.5
Des dan	25	26.3
TOTAL SUM (Σ) =	95	100%

COVER:

Vegetation	95
Bare Ground	5
Rocks	
Other	
TOTAL =	100%

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Lol mul	26.3	26.3		
Des dan	26.3	52.6		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 15
Applicant/Owner: River - West Field Investigator(s): S. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: 41N50E, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☐ No ☒

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Tar cap</u>	<u>-</u>	<u>H</u>	<u>28</u>	5) _____	_____	_____	_____
2) <u>Bro hor</u>	<u>FACW</u>	<u>H</u>	<u>20</u>	6) _____	_____	_____	_____
3) <u>Lea tar</u>	<u>FACW</u>	<u>H</u>	<u>20</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 0/3 = 0 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: _____ (in) Depth to free water in pit: _____ (in) Depth to saturated soil: 76 (in)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: No 1^o or 2^o indicators observed.

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Redding gravelly loam 3-8% slope Drainage Class: well drained
Taxonomy [Subgroup]: Themic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>6</u>	<u>A</u>	<u>7.5YR 3/4</u>	<u>-</u>	<u>-</u>	<u>Sandy Clay loam</u>
<u>Bottom of soil pit at 6".</u>					

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not met any of 3 criteria
General comments: _____
Wetland Type: _____

sp 15

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Bro hor	25	20
Tae cap	35	28
Tri hir	15	12
Hem pan2	15	12
Ave fat	10	8
Leo tar	25	20
TOTAL SUM (Σ) =	125	100%

COVER:

Vegetation 100%
 Bare Ground
 Rocks
 Other
 TOTAL = 100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Tae Cap	28	28		
Bio hor	20	48		
Leo tar	20	68		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 16
Applicant/Owner: River - West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: UNSEC, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Des den</u>	<u>Facw</u>	<u>H</u>	<u>33.3</u>	5) _____	_____	_____	_____
2) <u>Fry vas</u>	<u>Facw</u>	<u>H</u>	<u>33.3</u>	6) _____	_____	_____	_____
3) <u>Nav leu</u>	<u>Obl</u>	<u>H</u>	<u>33.3</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 3/3 = 100 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: _____ (in.) Depth to free water in pit: _____ (in.) Depth to saturated soil: 78 (in.)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☒ Other hoof prints
Comments: _____

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: well drained
Taxonomy [Subgroup]: Theromic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☒ Gleyed/Low Chroma Colors ☐ Concretion
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>8</u>	<u>A</u>	<u>7.5YR 3/1</u>	<u>-</u>	<u>-</u>	<u>sandy clay loam</u>
<u>Bottom of soil pit @ 8".</u>					

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: Meets all 3 criteria.
General comments: _____

Wetland Type: seasonal wetland scrub

sp/16

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
<i>Des dom</i>	35	33.3
<i>Ery vas</i>	35	33.3
<i>Nav leu</i>	35	33.3
TOTAL SUM (Σ) =	105	100%

COVER:

Vegetation	100
Bare Ground	
Rocks	
Other	
TOTAL =	100%

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
<i>Des dom</i>	33.3	33.3		
<i>Ery vas</i>	33.3	66.6		
<i>Nav leu</i>	33.3	100		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 17
Applicant/Owner: River - West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: 4N5EC, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☐ No ☒

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Bro hor</u>	<u>Facu-</u>	<u>H</u>	<u>45</u>	5) _____	_____	_____	_____
2) <u>Hem pine</u>	<u>Fac</u>	<u>H</u>	<u>20</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/2 = 50 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: _____ (in.) Depth to free water in pit: _____ (in.) Depth to saturated soil: 76 (in.)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: No 1° or 2° indicators observed

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: well drained
Taxonomy [Subgroup]: Thermic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒
Depth (in.) Horizon Matrix Color Mottle Color Mottle (Abund/Contrast/Size) Texture, Concretions, Structure
6 A 7.5YR 3/4 - - sandy clay loam
Bottom of soil pit @ 6" _____

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not meet all 3 criteria
General comments: _____
Wetland Type: _____

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HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
<i>Bra hor</i>	45	45
<i>Pha spe</i>	15	15
<i>Hem pur</i>	20	20
<i>Era set</i>	5	5
<i>Tri hir</i>	15	15
TOTAL SUM (Σ) =	100	100%

COVER:

Vegetation 100

Bare Ground

Rocks

Other

TOTAL = 100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
<i>Bra hor</i>	45	45		
<i>Hem pur</i>	20	65		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 18
Applicant/Owner: River - West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: 4N5E6, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Ele spe</u>	<u>FACW</u>	<u>H</u>	<u>70.6</u>	5) _____	_____	_____	_____
2) _____	_____	_____	_____	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/1 = 100 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: 4 (in) Depth to free water in pit: _____ (in) Depth to saturated soil: _____ (in)
Primary Indicators: ☒ Inundated ☐ Saturated in Upper 12 in ☒ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: 1st indicator observed.

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: Redding gravelly loam 3-8% Drainage Class: well drained
Taxonomy [Subgroup]: Thermic Abrutic Pucixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☒ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒
Depth (in.) Horizon Matrix Color Mottle Color Mottle (Abund/Contrast/Size) Texture, Concretions, Structure
6 A 10YR 3/1 — — sandy clay loam
Bottom of pit @ 6".

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: Meets all 3 parameters.
General comments: _____

Wetland Type: Ephemeral Drainage (#5)

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HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
<i>Ele. spe</i>	60	70.6
<i>Dig. san</i>	20	23.5
<i>pal. mon</i>	5	5.8
TOTAL SUM (Σ) =	85	100%

COVER:

Vegetation	85
Bare Ground	15
Rocks	
Other	
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
<i>Ele. spe.</i>	70.6	70.6		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.

ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 19
 Applicant/Owner: River - West Field Investigator(s): J. Roper
 County: Yuba State: Ca Plant Community: Annual Grassland
 Quad(s): Wheatland Section/Township/Range: UNSEC, T14N, R5E
 Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
 Atypical Situation? Yes ☐ No ☒ Explain: _____
 Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Bro hor</u>	<u>Facu</u>	<u>H</u>	<u>40.9</u>	5) _____	_____	_____	_____
2) <u>Lal mul</u>	<u>Fac+</u>	<u>H</u>	<u>27.3</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/2 = 50 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____
 Depth of surface water: _____ (in.) Depth to free water in pit: _____ (in.) Depth to saturated soil: 7/10 (in.)
 Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland
 Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
 Comments: No 1° or 2° indicators observed.

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: Well drained
 Taxonomy [Subgroup]: Thurmic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
 Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>10</u>	<u>A</u>	<u>7.5YR 3/4</u>	<u>—</u>	<u>—</u>	<u>sandy clay loam</u>
<u>Bottom of soil pit @ 10".</u>					

 Comments: _____

* DECISION *

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Only 2/3 criteria met.
 General comments: _____
 Wetland Type: _____

SP 19

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
<i>Hem puno</i>	10	9.1
<i>Lol mul</i>	30	27.3
<i>Can sol</i>	20	18.2
<i>Bio hor</i>	45	40.9
<i>Tri bir</i>	5	4.5
TOTAL SUM (Σ) =	110	100%

COVER:

Vegetation	100
Bare Ground	
Rocks	
Other	
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
<i>Bio hor</i>	40.9	40.9		
<i>Lol mul</i>	27.3	68.2		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 20
Applicant/Owner: River - West Field Investigator(s): S. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: UNSEC, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Lol mul</u>	<u>FAC</u>	<u>H</u>	<u>38.8</u>	5) _____	_____	_____	_____
2) <u>Ery VAS</u>	<u>FACW</u>	<u>H</u>	<u>22.2</u>	6) _____	_____	_____	_____
3) <u>Dig san</u>	<u>FACU</u>	<u>H</u>	<u>22.2</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: _____ (in.) Depth to free water in pit: _____ (in.) Depth to saturated soil: 78 (in.)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in ☐ Water Marks ☐ Drift Lines ☒ Sediment Deposits ☒ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☒ Oxidized Root Channels in Upper 12 in ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: 10 indicators observed.

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: Well drained
Taxonomy [Subgroup]: Thermic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☒ Gleyed/Low Chroma Colors ☐ Concretion
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒
Depth (in.) Horizon Matrix Color Mottle Color Mottle (Abund/Contrast/Size) Texture, Concretions, Structure
8 A 7.5 YR 3/1 — — sandy clay loam
Bottom of soil pit @ 8".

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: all 3 criteria met.
General comments: _____
Wetland Type: vernal pool (# 520)

SP 20

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Lol mul	35	38.8
Rum Cri	15	16.6
Ery Vas	20	22.2
Pig saw	20	22.2
TOTAL SUM (Σ) =	90	100%

<u>COVER:</u>	
Vegetation	90
Bare Ground	10
Rocks	
Other	
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Lol mul	38.8	38.8		
Ery vas	22.2	61.0		
Pig saw	22.2	83.2		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 21
Applicant/Owner: River - West Field Investigator(s): S. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: UNSEC, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☐ No ☒

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Ave fat</u>	<u>N/L</u>	<u>H</u>	<u>23.8</u>	5) _____	_____	_____	_____
2) <u>Tae Cap</u>	<u>-</u>	<u>H</u>	<u>19.0</u>	6) _____	_____	_____	_____
3) <u>Tri hic</u>	<u>N/L</u>	<u>H</u>	<u>19.0</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 0/3 = 0 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: _____ (in.) Depth to free water in pit: _____ (in.) Depth to saturated soil: 78 (in.)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: No 1^o or 2^o indicators observed.

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: Well drained
Taxonomy [Subgroup]: Themic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒
Depth (in.) Horizon Matrix Color Mottle Color Mottle (Abund/Contrast/Size) Texture, Concretions, Structure
8 A 7.5YR 3/4 - - sandy clay loam
Bottom of pit at 8".

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: None of 3 criteria met.
General comments: _____
Wetland Type: _____

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HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Ave fat	25	23.8
Tae cap	50 20	19.0
Tri hir	20	19.0
Hem pun	10	9.5
Ere sat	15	14.3
Bri min	15	14.3
TOTAL SUM (Σ) =		100%

COVER:

Vegetation 100

Bare Ground

Rocks

Other

TOTAL = 100%

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Ave fat	23.8	23.8		
Tae Cap	19.0	42.8		
Tri hir	19.0	61.8		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 22
Applicant/Owner: River - West Field Investigator(s): S. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: 4N5EC, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Lol meul</u>	<u>Fac</u>	<u>H</u>	<u>28.6</u>	5) <u>Jwn buf</u>	<u>Facus⁺</u>	<u>H</u>	<u>14.3</u>
2) <u>Ery vas</u>	<u>Facw</u>	<u>H</u>	<u>19.0</u>	6) _____	_____	_____	_____
3) <u>Hern pur</u>	<u>Fac</u>	<u>H</u>	<u>14.3</u>	7) _____	_____	_____	_____
4) <u>Tri hic</u>	<u>N/H</u>	<u>H</u>	<u>14.3</u>	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 4/5 = 80 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: _____ (in.) Depth to free water in pit: _____ (in.) Depth to saturated soil: 78 (in.)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: 1^o indicator observed.

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: Well drained
Taxonomy [Subgroup]: Themic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☒ Gleyed/Low Chroma Colors ☐ Concretion
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>8</u>	<u>A</u>	<u>7.5 YR 3/1</u>	<u>—</u>	<u>—</u>	<u>sandy clay loam</u>
<u>Bottom of soil pit at 8".</u>					

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: meets all 3 parameters
General comments: _____

Wetland Type: seasonal wetland scrub
(#197)
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HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
<i>Lol mul</i>	30	28.6
<i>Hem pun</i>	15	14.3
<i>Ery vas</i>	20	19.0
<i>Tri hic</i>	15	14.3
<i>Jun buf</i>	15	14.3
<i>Bri min</i>	10	9.5
TOTAL SUM (Σ) =	105	100%

COVER:

Vegetation 100

Bare Ground

Rocks

Other

TOTAL = 100%

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
<i>Lol mul</i>	28.6	28.6		
<i>Ery vas</i>	19.0	47.6		
<i>Hem pun</i>	14.3	61.9		
<i>Tri hic</i>	14.3	76.2		
<i>Jun buf</i>	14.3	90.5		
TOTAL SUM (Σ) =	100%			

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ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 23
Applicant/Owner: River - West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: UNSEC, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☐ No ☒

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Tar cap</u>	<u>-</u>	<u>H</u>	<u>22.2</u>	5) _____	_____	_____	_____
2) <u>Ave fat</u>	<u>N/L</u>	<u>H</u>	<u>18.5</u>	6) _____	_____	_____	_____
3) <u>Hem pun</u>	<u>FAC</u>	<u>H</u>	<u>18.5</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/3 = 33 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: _____ (in.) Depth to free water in pit: _____ (in.) Depth to saturated soil: 7 8" (in.)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: No 1^o or 2^o indicators observed.

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: well drained
Taxonomy [Subgroup]: Themic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒
Depth (in.) Horizon Matrix Color Mottle Color Mottle (Abund/Contrast/Size) Texture, Concretions, Structure
8 A 7.5 YR 4/3 - - sandy clay loam
Bottom of soil pit at 8".

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not meet any of 3 criteria.
General comments: _____
Wetland Type: _____

sp 23

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Ave fat	25	18.5
Ere sat	20	14.8
Hern pun	25	18.5
Tae cap	30	22.2
Tri hir	20	14.8
Bri min	15	11.1
TOTAL SUM (Σ) =	135	100%

COVER:

Vegetation	100
Bare Ground	
Rocks	
Other	
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Tae cap	22.2	22.2		
Ave fat	18.5	40.7		
Hern pun	18.5	59.2		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 24
Applicant/Owner: River - West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: 41N30E, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Ery var</u>	<u>FACW</u>	<u>H</u>	<u>33.3</u>	5) _____	_____	_____	_____
2) <u>Hem pen</u>	<u>FAC</u>	<u>H</u>	<u>26.6</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/2 = 100 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: — (in) Depth to free water in pit: — (in) Depth to saturated soil: 78 (in)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☒ Oxidized Root Channels in Upper 12 in ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☒ Other hoof prints
Comments: P indicator observed.

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: well drained
Taxonomy [Subgroup]: Thermic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☒ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒
Depth (in.) Horizon Matrix Color Mottle Color Mottle (Abund/Contrast/Size) Texture, Concretions, Structure
8 A 7.5 YR 3/1 — — sandy clay loam
Bottom of soil pit at 8".
Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: meets all 3 parameters
General comments: _____
Wetland Type: seasonal wetland (#42)

SP 24

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Ery vas	25	33.3
Hem pun	20	26.6
Pol men	15	20
Lol mul	15	20
TOTAL SUM (Σ) =	75%	100%

COVER:

Vegetation	75
Bare Ground	25
Rocks	
Other	
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Ery vas	33.3	33.3		
Hem pun	26.6	59.9		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 25
Applicant/Owner: River - West Field Investigator(s): J. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: 41526, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☐ No ☒

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>Tri. hic</u>	<u>N/L</u>	<u>H</u>	<u>25</u>	5) _____	_____	_____	_____
2) <u>Ave. fat</u>	<u>N/L</u>	<u>H</u>	<u>20</u>	6) _____	_____	_____	_____
3) <u>Tae. cap</u>	<u>-</u>	<u>H</u>	<u>20</u>	7) _____	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 0/3 = 0 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: — (in) Depth to free water in pit: — (in) Depth to saturated soil: 78 (in)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: No 1° or 2° indicators observed.

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: Well drained
Taxonomy [Subgroup]: Themic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>8</u>	<u>A</u>	<u>7.5 YR 4/3</u>	<u>—</u>	<u>—</u>	<u>sandy clay loam</u>
<u>Bottom of pit at 8".</u>					

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not met any of 3 criteria-
General comments: _____
Wetland Type: —

sp 25

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Ave fat	20	20
Lol mul	15	15
Tae cap	20	20
Tri hir	25	25
Bri min	10	10
Ele set	10	10
TOTAL SUM (Σ) =	100	100%

COVER:

Vegetation	100
Bare Ground	
Rocks	
Other	
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Tri hir	25	25		
Ave fat	20	45		
Tae cap	20	65		
TOTAL SUM (Σ) =	100%			

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ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: Brown Cattle Company Date: 6/30/05 Sample Point: 26
Applicant/Owner: River-West Field Investigator(s): S. Roper
County: Yuba State: Ca Plant Community: Annual Grassland
Quad(s): Wheatland Section/Township/Range: 4N5EC, T14N, R5E
Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____
Atypical Situation? Yes ☐ No ☒ Explain: _____
Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) <u>lol mul</u>	<u>Fac</u>	<u>H</u>	<u>26.3</u>	5) _____	_____	_____	_____
2) <u>Des idam</u>	<u>Facw</u>	<u>H</u>	<u>31.6</u>	6) _____	_____	_____	_____
3) _____	_____	_____	_____	7) <u>1</u>	_____	_____	_____
4) _____	_____	_____	_____	8) _____	_____	_____	_____

Percentage of dominant species that are OBI, FACW, and/or FAC [excluding FAC-]: 2/2 = 100 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____
Depth of surface water: _____ (in) Depth to free water in pit: _____ (in) Depth to saturated soil: 710 (in)
Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns in Wetland
Secondary Indicators (2 or more required):
☒ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____
Comments: 10 indicator observed.

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: Redding gravelly loam 3-8% slopes Drainage Class: well drained
Taxonomy [Subgroup]: Thermic Abrutic Durixeralfs Confirm Map Type: Yes ☐ No ☒
☐ Histosol ☐ Histic Epipedon ☐ Sulfidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☒ Gleyed/Low Chroma Colors ☐ Concretion:
☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____
Inclusions [Series/Phase]: _____ On Hydric Soils List: Yes ☐ No ☒

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
<u>10</u>	<u>A</u>	<u>7.5YR 3/1</u>	<u>—</u>	<u>—</u>	<u>sandy clay loam</u>
<u>Bottom of pit at 10".</u>					

Comments: _____

*** DECISION ***

WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: meets all 3 criteria.
General comments: _____
Wetland Type: vernal pool (#252)

SP 26

HERBACEOUS COVER / DOMINANCE WORK SHEET

<u>Species Observed</u>	<u>Actual Cover</u>	<u>Relative Cover</u>
Ery vas	28	21.0
Hem pur	20	21.0
Lol mul	25	26.3
Des san	30	31.6
TOTAL SUM (Σ) =	95	100%

COVER:

Vegetation	95
Bare Ground	5
Rocks	
Other	
TOTAL =	100%

<u>Species (Descending Order)</u>	<u>Relative Cover</u>	<u>Cumulative Cover</u>	<u>Indicator Status</u>	<u>Dominants</u>
Lol mul	26.3	26.3		
Des san	31.6	57.9		
TOTAL SUM (Σ) =	100%			

APPENDIX B

Plant Species Observed at Data Point Locations

**Brown Cattle Company – Wetland Delineation
Plant Species Observed at Data Point Locations**

Abbr.	Scientific Name	Common Name	Indicator Status
AVE FAT	<i>Avena fatua</i>	Wild oat	N/L
BRI MIN	<i>Briza minor</i>	Little quaking grass	FACW-
BRO HOR	<i>Bromus hordeaceus</i>	Soft brome	FACU-
CEN SOL	<i>Centaurea solstitialis</i>	Yellow star-thistle	N/L
DES DAN	<i>Deschampsia danthonioides</i>	Annual hairgrass	FACW
DIG SAN	<i>Digitaria sanguinalis</i>	Hairy crabgrass	FACU
ELE spe	<i>Eleocharis</i> species	Spikerush	FACW
ERE SET	<i>Eremocarpus setigerus</i>	Turkey mullien	N/L
ERY VAS	<i>Eryngium vaseyi</i>	Vasey's coyote-thistle	FACW
GLY spe	<i>Glyceria</i> species	Spikerush	OBL
HEM PUN	<i>Hemizonia pungens</i>	Common tarweed	FAC
JUN BUF	<i>Juncus bufonius</i>	Toad rush	FACW+
LEO TAR	<i>Leontodon taraxacoides</i>	Hairy hawkbit	FACU
LOL MUL	<i>Lolium multiflorum</i>	Ryegrass	FAC*
NAV LEU	<i>Navarretia leucocephala</i>	White-head navarretia	OBL
PHA spe	<i>Phalaris</i> species	Canary grass	--
PLA spe	<i>Plantago</i> species	Plantain	--
POL MON	<i>Polypogon monspeliensis</i>	Annual rabbit-foot grass	FACW+
RUM CRI	<i>Rumex crispus</i>	Curly dock	FACW-
TAE CAP	<i>Taeniatherum caput-medusae</i>	Medusahead grass	N/L
TRI HIR	<i>Trifolium hirtum</i>	Rose clover	N/L

Indicator Status Codes

OBL = Obligate Wetland; occur almost always (estimated probability >99%) under natural conditions in wetlands.

FACW = Facultative Wetland; usually occur in wetlands (estimated probability 67%-99%) under natural conditions in wetlands.

FAC = Facultative; equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).

FACU = Facultative Upland; usually occur in non-wetlands (estimated probability 67%-99%).

UPL = Obligate Upland; occur almost always (estimated probability >99%) in non-wetlands in the region specified.

N/L = Not Listed.

NI = No indicator was recorded for those species for which insufficient information was available to determine a status.

-- = May or may not occur in wetlands depending upon species.

A positive (+) sign indicates a frequency toward the higher (more frequently found in wetlands) end of the facultative categories.

A negative (-) sign indicates a frequency toward the lower (less frequently found in wetlands) end of the facultative categories.

An asterisk (*) indicates a tentative assignment based upon limited information or conflicting review.

APPENDIX C

Wetland Delineation

Map

Goes here

APPENDIX D

Wetland Delineation Shape File (to be include with Corps submittal only)

APPENDIX E

Corps-Verified Wetland Map and Verification Letter (to be included in the Final Draft
document upon receipt)